

# **METHODS AND APPARATUS FOR PROVIDING SIGNAL DEPENDENT OFFSET AND GAIN ADJUSTMENTS FOR A SOLID STATE X-RAY DETECTOR**

## **Abstract of Disclosure**

Methods and apparatus are provided in a diagnostic X-ray system for reducing signal conversion time for a solid-state detector panel of the X-ray system in order to increase frame rate. A measurement of a set of induced signal offsets caused by time varying charge retention associated with the detector panel is performed during a phantom time segment prior to normal signal readout of the detector panel for a current image frame. A set of adjustment values is generated in response to the set of induced signal offsets. Subsets of signal values of the detector panel are read out to a pre-determined signal dynamic range as part of normal signal readout of the detector panel in response to the set of adjustment values, thus generating a set of normalized detector signals.

## Figures

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100